Amendments to the Claims:

1.   (Original) A method of communicating data from a transmitting end to a receiving end, comprising:

the transmitting end applying to a plurality of original data bits that are to be transmitted to the receiving end an encoding algorithm that produces overhead bits;

the transmitting end transmitting the original data bits without the overhead bits in a first transmission to the receiving end; and

the transmitting end refraining from transmitting the overhead bits until the transmitting end receives an indication from the receiving end that the original data bits have not been correctly received at the receiving end.

2.   (Original) The method of Claim 1, including the transmitting end transmitting the overhead bits to the receiving end in a second transmission in response to an indication from the receiving end that the original data bits have not been correctly received at the receiving end.

3.   (Original) The method of Claim 2, including the receiving end combining a received version of the original data bits and a received version of the overhead bits to produce a combined set of received bits, and the receiving end applying to the combined set of received bits a decoding algorithm that corresponds to said encoding algorithm.

4.   (Original) The method of Claim 2, including the receiving end applying to a received version of the overhead bits a mapping operation which, if the overhead bits have been received correctly at the receiving end, will result in the original data bits, and the receiving end applying an error detection procedure to the result of the mapping operation to determine whether the mapping operation has resulted in the original data bits and, in response to a determination that the mapping operation has not resulted in the original data bits, the receiving end combining the received version of the overhead bits with a received version of the original data bits to produce a combined set of received bits, and the receiving end applying to the combined set of received bits a decoding algorithm that corresponds to said encoding algorithm.

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5.   (Original) The method of Claim 4, wherein said encoding and decoding algorithms are Viterbi encoding and decoding algorithms.

6.   (Original) The method of Claim 4, including the receiving end applying an error detection procedure to a result of said decoding algorithm to determine whether said decoding algorithm has resulted in the original data bits and, in response to a determination that said decoding algorithm has not resulted in the original data bits, the receiving end transmitting to the transmitting end a request for retransmission of the original data bits.

7.   (Original) The method of Claim 6, including the transmitting end retransmitting the original data bits to the receiving end and, in response to a determination by the receiving end that said retransmission of the original data bits has not been received correctly, the receiving end combining a received version of the retransmitted original data bits with said received version of the overhead bits to produce another combined set of received bits, and the receiving end applying said decoding algorithm to said another combined set of received bits.

8.   (Previously amended) A method of communicating data from a transmitting end to a receiving end, comprising:

        the receiving end receiving from the transmitting end a first transmission including original data bits without overhead bits produced at the transmitting end by operation of an encoding algorithm applied to the original data bits;

        the receiving end determining whether the original data bits have been received correctly and, responsive to a determination that the original data bits have not been received correctly, the receiving end transmitting to the transmitting end a request for transmission of the overhead bits.

9.   (Original) The method of Claim 8, wherein the encoding algorithm is a convolutional encoding algorithm.

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10. (Previously amended) A data communication apparatus, comprising:

an input for receiving original data bits that are to be transmitted via a communication channel to another data communication apparatus;

an encoder coupled to said input for applying to the original data bits an encoding algorithm that produces overhead bits;

an output for providing bits that are to be transmitted across the communication channel; and

a data path coupled between said encoder and said output, said data path receiving information from said another data communication apparatus, said data path selecting one of the original data bits and the overhead bits in response to a first information, said data path selecting the other of the original data bits and the overhead bits in response to a second information, to be provided to said output for transmission across the communication channel to said another data communication apparatus.

11. (Original) The apparatus of Claim 10, wherein said data path includes a buffer coupled to said encoder for storing the original data bits and the overhead bits.

12. (Previously amended) The apparatus of Claim 11, wherein said data path includes a selector coupled between said buffer and said output, said selector responsive to said information for obtaining one of the original data bits and the overhead bits from said buffer to be provided to said output for transmission to said another data communication apparatus.

13. (Previously amended) The apparatus of Claim 10, wherein said first information includes an acknowledgement and said second information includes a negative acknowledgement indicating that an earlier transmission has not been received correctly at said another communication apparatus, said data path responsive to the negative acknowledgement for changing its selection from one of the original data bits and the overhead bits to the other of the original data bits and the overhead bits.

14. (Original) The apparatus of Claim 10, provided as a wireless communication apparatus.

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15.   (Original) The apparatus of Claim 10, wherein said encoder is a convolutional encoder.

16.   (Previously amended) A data communication apparatus, comprising:

an input for receiving a received version of original bits in response to a first information without overhead bits produced at another data communication apparatus by operation of an encoding algorithm applied to the original bits, said input receiving said overhead bits in response to a second information, said original bits and overhead bits transmitted over a communication channel by said another data communication apparatus;

an error detector coupled to said input for determining whether the received version of the original data bits is correct; and

a controller coupled to said error detector, responsive to a determination that the received version of the original data bits is correct for providing said first information to said another data communication apparatus, and responsive to a determination that the received version of the original data bits is incorrect for providing said second information to said another data communication apparatus.

17.   (Original) The apparatus of Claim 16, wherein said input is further for receiving a received version of the overhead bits as transmitted from said another data communication apparatus, said controller coupled to said input for applying to the received version of the overhead bits a mapping operation which, if the overhead bits have been received correctly at the receiving end, will result in the original data bits, said error detector coupled to said controller for applying an error detection procedure to the result of the mapping operation to determine whether the mapping operation has resulted in the original data bits.

18.   (Original) The apparatus of Claim 17, including a decoder coupled to said input and said controller, said controller responsive to a determination by said error detector that the mapping operation has not resulted in the original data bits for signaling said decoder to apply to the received version of the original data bits and the received version of the overhead bits a decoding algorithm that corresponds to said encoding algorithm.

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19.   (Original) The apparatus of Claim 18, including a buffer coupled between said input and said decoder for storing the received version of the original bits and the received version of the overhead bits for use by said decoder.

20.   (Original) The apparatus of Claim 18, wherein said error detector is coupled to said decoder for determining whether said decoding algorithm has resulted in the original data bits, said controller operable in response to a determination that said decoding algorithm has not resulted in the original data bits for providing for transmission to said another data communication apparatus a request for retransmission of the original data bits.

21.   (Original) The apparatus of Claim 18, wherein said decoder is a Viterbi decoder.

22.   (Original) The apparatus of Claim 16, provided as a wireless communication apparatus.

23.   (Previously added) A method of transmitting data, comprising:
applying an encoding algorithm that produces overhead bits to a plurality of original data bits that are to be transmitted;
transmitting the original data bits without the overhead bits in a first transmission; and
refraining from transmitting the overhead bits until receiving an indication that the original data bits have not been correctly received.

24.   (Previously added) The method of Claim 23, comprising transmitting the overhead bits in a second transmission in response to the indication that the original data bits have not been correctly received.

25.   (Previously added) The method of Claim 23, wherein said encoding algorithm is a Viterbi encoding algorithm.

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26. (Previously added) The method of Claim 23, comprising retransmitting the original data bits.

27. (Previously amended) A method of receiving data, comprising:
receiving a first transmission including original data bits without overhead bits produced by operation of an encoding algorithm applied to the original data bits;
determining that the original data bits have not been received correctly; and
transmitting a request for transmission of overhead bits responsive to the step of determining.

28. (Previously added) The method of Claim 27, wherein the encoding algorithm is a convolutional encoding algorithm.

29. (Previously added) The method of Claim 27, comprising:
combining a received version of the original data bits and a received version of the overhead bits to produce a combined set of received bits; and
applying a decoding algorithm that corresponds to said encoding algorithm to the combined set of received bits to produce decoded data bits.

30. (Previously added) The method of Claim 29, comprising:
applying an error detection procedure to the decoded data bits;
determining the decoded data bits are not the same as the original data bits in response to the step of applying; and
transmitting a request for retransmission of the original data bits in response to the step of determining.

31. (Previously added) The method of Claim 29, comprising:
receiving a retransmission of the original data bits;
determining that said retransmission of the original data bits has not been received correctly;

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combining a received version of the retransmitted original data bits with said received version of the overhead bits to produce another combined set of received bits; and

applying said decoding algorithm to said another combined set of received bits.

32.   (Previously added) The method of Claim 27, comprising:

applying a mapping operation to a received version of the overhead bits to produce resultant data bits;

applying an error detection procedure to the resultant data bits;

determining that the resultant data bits are not the same as the original data bits in response to the step of applying;

combining the received version of the overhead bits with a received version of the original data bits to produce a combined set of received bits; and

applying a decoding algorithm that corresponds to said encoding algorithm to the combined set of received bits.

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